

Patent Claims

1. A seat comprising:

- 5 a) a seat plate (1) which, in principle, is arranged horizontally and has at least two parts (2,3) which lie one above another in layers and are joined together and, as the upper part (2) and lower part (3) of the seat plate (1), consist of molded plywood glued together in layers and extend partially or completely over the seat plate (1); and
- b) legs (5,5';6,6') which protrude to the floor, wherein
- 10 c) the legs (5,5';6,6') have extensions (50,50';60,60') at the top;
- d) grooves (20) are incorporated by cutting on the lower side of the upper part (2) that faces the lower part (3);
- e) grooves (30) are integrally formed without cutting on the upper side of the lower part (3) that faces the upper part (2); and
- 15 f) between the parts (2,3) of the seat plate (1), the extensions (50,50';60,60') of the legs (5,5';6,6') are fitted in the grooves (20,30).

2. The seat as claimed in claim 1, wherein

- a) the upper part (2) and the lower part (3) extend over the entire seat plate (1);
- 20 b) in order to complete the seat to make a stool into a chair, there is a backrest (4) which, in principle, is vertical; and
- c) the upper part (2) and the lower part (3) of the seat plate (1) preferably merge integrally into the backrest (4).

3. The seat as claimed in claim 1 or 2, wherein

- a) the legs (5,5';6,6') emerge from the corner regions of the seat plate (1);
- b) the legs (5,5';6,6') are connected to one another in pairs by the extensions (50,50';60,60') which merge into one another; and
- 30 c) the extensions (50,50';60,60') are, in principle, angled horizontally.

4. The seat as claimed in claim 3, wherein

- a) one front leg (5,6) and one rear leg (5',6') in each case form an interconnected pair; and
- b) the extensions (50,50';60,60') are attached in the corner regions of the seat plate (1).

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5. The seat as claimed in claim 4, wherein the extensions (50,50';60,60') of both pairs of legs (5,5';6,6') extend in the form of bows (51,61) toward the central region of the seat plate (1).

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6. The seat as claimed in one of claims 1 to 5, wherein the upper part (2) is of greater material thickness than the lower part (3).

7. The seat as claimed in one of claims 1 to 6, wherein

- 15 a) the chair is provided with armrests (7,8);
- b) the armrests (7,8) have extensions (70,70';80,80') at their first and second ends;
- c) grooves (21) are incorporated by cutting on the lower side of the upper part (2) that faces the lower part (3);
- 20 d) grooves (31) are integrally formed without cutting on the upper side of the lower part (3) that faces the upper part (2); and
- e) between the parts (2,3) of the seat plate (1) and the backrest (4), the extensions (70,70';80,80') of the armrests (7,8) are fitted in the grooves (21,31).

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8. The seat as claimed in one of claims 1 to 6, wherein

- a) the chair is provided with armrests (7,8);
- b) the armrests (7,8) are connected to each other by a bow;
- c) a groove (21) is incorporated by cutting in the backrest (4), on the side of the upper part (2) that faces the lower part (3);
- 30 d) a groove (31) is integrally formed without cutting in the backrest (4), on the side of the lower part (3) that faces the upper part (2), said groove (31) lying in a complementary manner with respect to the groove (21) in the upper part (2); and

- e) between the parts (2,3) of the seat plate (1) and the backrest (4), the bow which connects the armrests (7,8) is fitted in the grooves (21,31).

9. The seat as claimed in one of claims 1 to 6, wherein

- 5 a) the chair is provided with armrests (7,8);
b) the armrests (7,8) have securing elements (77,87) at their first ends, and a free-swinging armrest section (79,89) extends in each case toward the second end of the armrests (7,8), said armrest sections being intended as an arm support for the users;
10 c) a noncontinuous recess (22) is incorporated by cutting on both sides in the backrest (4), on the side of the upper part (2) that faces the lower part (3);
d) apertures (32) which are complementary with respect to the recesses (22) are provided on both sides in the backrest (4), in the lower part (3); and
e) between the parts (2,3) of the backrest (4), the securing elements (77,87) of
15 the armrests (7,8) are embedded in the recesses (22) and apertures (32) and are supported therein.

10. The seat as claimed in claim 9, wherein

- a) the securing element (77,87) of the armrest (7,8) is of plate-shaped geometry;
20 b) the elongated armrest section (79,89) merges in a transition (78,88) in an angled manner into a shorter supporting section (76,86) which opens into the backrest (4);
c) the cross section of the armrest section (79,89) has a greater horizontal
25 extent than in the vertical direction;
d) in the bent transition (78,88) from the armrest section (79,89) to the supporting section (76,86), the profile of the armrest (7,8) is rotated through 90°, as a result of which the cross section of the supporting section (76,86) has a greater vertical extent than in the horizontal direction; and
30 e) the securing element (77,87) is situated in the plane of the vertical extent of the supporting section (76,86) and protrudes above and below the latter.

11. The seat as claimed in one of claims 1 to 10, wherein

- a) in the case of seats stacked one above another, the rear legs (5',6'), which protrude out of the seat plate (1), come to lie in each case directly in front of the rear legs (5',6') of the respectively lower seat;
- 5 b) the front legs (5,6) come to lie in each case at a distance in front of those of the respectively lower seat;
- c) space remains between the backrests (4) in order to provide a backrest cushion (40) without increasing the forwardly directed overhang of seats stacked one above another.

10 12. The seat as claimed in one of claims 1 to 6 or 9 to 11, wherein

- a) in the case of seats which are stacked one above another and are provided with armrests (7,8) having a free-swinging armrest section (79,89), the re-
15 spective armrests (7,7;8,8) on one side of the seats come to lie one above another without increasing the stack height or the forwardly directed overhang; and
- b) in this case, the horizontal distance (a) and the vertical offset (v) between respectively adjacent backrests (4,4) of seats stacked one above another provide sufficient space for the supporting sections (76,76), the transitions
20 (78,78) and the armrest sections (79,79) of the armrests (7,8).

13. A row connector (9) for combining a seat, as claimed in one of claims 1 to 12, with a respectively adjacent seat, wherein

- a) the row connector (9) comprises a shackle-like clip part (90) and a slide
25 (96);
- b) the clip part (90) has a central section (91) from which grasping claws (92) branch off symmetrically to both sides;
- c) the grasping claws (92) have a clear width between them which corresponds to the distance between two rear legs (5',6') of seats placed adja-
30 cently in a row, and have an inner configuration which corresponds to the cross section of the rear legs (5',6') in the vicinity of the height of the bending-away transition into the extensions (50',60'); and

- d) the clip part (90) brought into the clamping position can be fixed releasably by means of the slide (96), the clamping position lying in the vicinity of the height to the bending-away transition into the extensions (50',60').

5 14. The row connector (9) as claimed in claim 13, wherein

- a) the row connector (9) has, on the clip part (90), on the inside of its central section (91), a rail guide (93) for the withdrawable reception of the sliding rail (97) of the slide (96), and, in the upper region, has a latching contour (94); and
- 10 b) a clamping plate (98) is attached at the top of the sliding rail (97) and, in each case facing the grasping claws (92), has a curved recess (99) for the passage of the cross section of the rear legs (5',6').

 15. The row connector (9) as claimed in claim 13 or 14, wherein

- 15 a) an angled, directly or indirectly elastic hook (100) which is pointed toward the central section (91) is arranged right at the bottom of the sliding rail (97) and, when the slide (96) is inserted to the maximum, grasps the lower edge of the central section (91) from below, and a defined withdrawing force is required in order to release the hook (100) again from this securing means;
- 20 and
- b) when the slide (96) is withdrawn to the maximum, the hook (100) is intended for latching into the latching contour (94).

 16. A method for producing a seat, as claimed in one of claims 1 to

25 12, wherein

- a) there are:
- aa) an upper part (2) and a separate lower part (3) having a seat plate (1) which, in principle, is horizontal and – in the case of a seat in the form of a chair – merges into a backrest (4) which, in principle, is vertical, the thicker
- 30 upper part (2) and the thinner lower part (3) consisting of molded plywood which is glued together in layers, for example of beech; and
- ab) two pairs of legs (5,5';6,6') which in each case form a front leg (5,6) and a rear leg (5',6'), having extensions (50,50';60,60') which, in principle, are

angled horizontally and merge into one another and extend in the form of bows (51,61) toward the central region of the seat plate (1); and

b) in the manufacturing process:

ba) grooves (20) are made by cutting on the lower side of the upper part (2) that faces the lower part (3), preferably by milling out;

bb) grooves (30) are integrally formed without cutting on the upper side of the lower part (3) that faces the upper part (2);

bc) the extensions (50,50';60,60') of the legs (5,5';6,6') are placed into the grooves (20,30) between the upper part (2) and lower part (3); and

bd) after that, the upper part (2) and lower part (3) are connected in a sheet-like manner to each other, preferably by gluing them together.

17. The method for producing a seat as claimed in claim 16, wherein in the case of a version with armrests (7,8), in addition to the grooves (20) incorporated by cutting and grooves (30) integrally formed without cutting, receiving contours (21,31;22,221,220,32) are provided in the upper and lower part (2,3) for the purpose of fixing the armrests (7,8) in place.